

TROSHENSKIY, S.F.; ZHDANOVICH, V.F., inzh., retsenzent; GULYACHKIN,
K.N., inzh., red.

[Calculating the precision of machining on machine tools]
Raschety tochnosti obrabotki na metallorezhushchikh stan-
kakh. Moskva, Izd-vo "Mashinostroenie," 1964. 202 p.
(MIRA 17:7)

TROSHENSKIY, S. P., Engineer

Cand tech sci

Dissertation: "Influence of the Riddity of Circular Grinding Machines on the Accuracy of Machinery."

15/11/50

Moscow Machine Tool Inst imeni L. V. Stalin

SO Vecheryaya Moskva
Sum 71

TROSHENSKIY, S.P.

[Precision in grinding-machine work] Tochnost' obrabotki na shli-
foval'nykh stankakh. Moskva, Gos. nauchno-tekh. issledovaniya i
stroitel'stvo, 1953. 123 p. (MLA 6:12)
(Grinding and polishing)

TROSHEV, A. I.

NOVIKOV, M.P., A.V. SIVAI, and A.I. TROSHEV

Montazh aviatsionnykh dvigatelei. Montazhnye prispособleniia. Moskva, Oberongiz, 1947. 268 p.

Title tr.: Assembly of aircraft engines and equipment.

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

TROSHEV, A.I.

Sborka aviatsionnykh dvigatelei. Moskva, Oborongiz, 1943. 175 p., illus.

Title tr.: Assembly of aircraft engines.

TL701.1.T7

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress,
1955.

NOVIKOV, M.P.; SIVAY, A.V.; TROSHEV, A.I.; YERUKHIMOVICH, TS.M., ZU-
DAKIN, I.M., tekhnicheskiiy redaktor.

[Installation of airplane engines; tools] Montazh aviatsionnykh
dvigatelei; montazhnye prispособleniia. Moskva, Oborongiz, glavnaia
redaktsiia aviatsionnoi lit-ry, 1947. 267 p. (MIRA 8:2)
(Airplanes--Engines)

TROSHEV, M.A., master

We are headed for communism. Metallurg 7 no.7:33-34 JI '62.
(MIRA 15:7)

1. Nikopol'skiy yuzhnotrubnyy zavod.
(Pipe mills)

TROSHEV, Nikolay Ivanovich

[Development and distribution of productive forces of the RSFSR from 1959 to 1965] Razvitie i razmeshchenie proizvoditel'nykh sil RSFSR v 1959-1965 godakh. Moskva, Ob-vo po rasprostraneniu polit. i nauchn. znani RSFSR, 1959. 38 p.

(MIRA 16:1)

(Russia—Economic policy) (Industries, Location of)

TR038W, N. I. --

"Problems of the Geographical Distribution of Socialist Industry." Cand Geog Sci, Inst of Geography, Acad Sci USSR, 22 Oct 54. (IM, 22 Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

TROSHEV, Nikolay Ivanovich, kand. geogr. nauk; TIKHOMIROV, V.N.,
red.; NAZAROVA, A.S., tekhn. red.

[What changes take place on the map of our economy]Kak me-
niaetsia karta nashei ekonomiki. Moskva, Izd-vo "Znanie,"
1962. 34 p. (Novoe v zhizni, nauke, tekhnike. XII Seriya:
Geologiya i geografiia, no.12) (MIRA 15:9)
(Russia--Economic policy)

TROSHCHY, Nikolay Ivanovich; KOMAROV, Ye.I., red.; PONOMAREVA, A.A.,
tekhn.red.

[Planning the distribution of industry in the U.S.S.R.] Plani-
rovanie razmeshcheniia promyshlennosti v SSSR. Moskva, Gosplanizdat,
1960. 125 p. (MIRA 13:11)
(Industries, Location of)

MISHEV, I.T.; RADICHEVA, M.A.; TROSHEV, T.M.

Study on radioactive contamination about the IRT-1000 nuclear reactor. Atom.energ. 16 no. 4:344-348 Ap '64. (MIRA 17:5)

1. Fizicheskiy institut Bolgarskoy Akademii nauk, Sofiya.

SOV/137-58-11-21934

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 11, p 14 (USSR)

AUTHOR: Troshichev, A. D.

TITLE: Measuring Surface Temperatures of Steel Ingots and Forgings
(Izmereniye temperatury poverkhnostey stal'nykh slitkov i pokovok)

PERIODICAL: Tr. Nevsk. mashinostroit. z'da, 1957, Nr 2, pp 88-93

ABSTRACT: A description is offered of the designs of 3 types of contact thermocouples (T) employed at the Nevskiy Machinery Plant for measuring surface temperatures of ingots, forgings, and various parts. The chromel-alumel T designed for measuring temperature in the 30-600°C range has an asbestos-cement head carrying the hot junction (HJ) fastened to the T protection tube by a spring. This permits the head to be deflected several degrees in either direction, thereby making for unbroken contact between the HJ and the surface the temperature of which is being measured. Steady readings are obtained when the HJ is brought into contact with the surface for 10-25 sec. The accuracy of the measurements, after correction for the temperature of the free ends of the T and for heat loss into the environment, comes to $\pm 10^{\circ}\text{C}$. Another T, designed for low lag and provided with

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SOV/137 58-11-21934

Measuring Surface Temperatures of Steel Ingots and Forgings

its own preheating, is designed for measuring temperatures in the 30-1200° interval. It consists of two electrode wires (chromel-alumel or Pt-Pt/Rh) in a single protection tube, connected as usual with a galvanometer, and of two nichrome or Pt conductors for the electric heater (H). Before a measurement is taken, the HJ is warmed up by the H to the presumed temperature of the surface being measured, whereupon the two are brought into contact. The deflection of the galvanometer pointer defines the number of degrees by which the real surface temperature is above or below that of the preheated HJ. Measurement is accurate to within $\pm 10^\circ$. The lag of this T is merely a fraction of a second. A bayonet-mounted T, used to determine the temperature of turbine blades, consists of a copel wire element in contact with the surface of the blade, the material of which (Nr 2Kh13 steel) serves as the other electrode. This T has a lag of 1 to 3 sec, but emits little heat to the ambient medium.

I. G.

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SOV/137-58-10-21756

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 185 (USSR)

AUTHOR: Troshichev, A. D.

TITLE: High-temperature Furnace for Calibrating Tungsten-molybdenum Thermocouples (Vysokotemperaturnaya pech' dlya graduirovaniya vol'fram-molibdenovykh termopar)

PERIODICAL: Tr. Nevsk. mashinostroit. z-da, 1957, Nr 2, pp 94-98

ABSTRACT: A description of a rapid method and equipment for calibrating W-Mo thermocouples in the 30-1650°C temperature range and also of a method for the control of nonhomogeneity of wire. The furnace consists of a hermetically sealed steel cylinder 100 - 120 mm in diameter in which two corundum tubes (T), one inserted into the other, are located. The space between the cylinder and the T is filled with crushed corundum or quartz sand. Previously purified Ar under a pressure of 2 - 5 mm water column is introduced through one end of the furnace; at the other end the heater terminals and the openings for the thermocouples are located. A heater consisting of Mo wire 0.46 - 0.50 mm in diameter (10 - 12 coils) is placed between the T. The ends of the standard thermocouple and the thermocouple being calibrated

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SOV/137-58-10-21756

High-temperature Furnace for Calibrating (cont.)

are welded together and placed into the inner corundum T. The temperature is increased at a rate of 100 degrees/min. At that rate of heating with short holding periods at certain temperatures the calibration requires 30 ~ 35 min. On comparison the results of calibration by this method agree well with the TsNIITMash (Central Scientific Research Institute of Technology and Machinery) method. To determine the homogeneity of the W and Mo wire, specimens 1 mm long are cut from both ends of each skein and W-W and Mo-Mo thermocouples are prepared. These are placed into the furnace which is kept at a constant 700° temperature. When the material is entirely homogeneous, the thermo-emf of these thermocouples equals zero.

- | | | | |
|---------------------|----------------------------------|------------------|-------|
| 1. Furnaces--Design | 2. Thermocouples--Calibration | 3. Tungsten wire | Z. F. |
| --Test methods | 4. Molybdenum wire--Test methods | | |

Card 2/2

ACC NR: AT6034611 SOURCE CODE: UR/3148/66/000/008/0063/0081

AUTHOR: Bazarzhapov, A. D.; Mishin, V. M.; Nemtsova, E. I.; Troshichev, O. A.

ORG: none

TITLE: Diurnal rate of magnetic activity during the IQY

SOURCE: AN SSSR. Mezhdunarodnyy geofizicheskiy komitet. III razdel programmy MQG (Geomagnetizm i zemnyye toki). Sbornik statey, no. 8, 1966. Geomagnitnyye issledovaniya (Geomagnetic research), 63-81

TOPIC TAGS: magnetic activity, geomagnetic index, current system, magnetic field, solar zenithal distance, universal time ~~component~~, local time component, auroral zone, *GEOMAGNETISM*, geomagnetic disturbance

ABSTRACT: The diurnal rate of geomagnetic activity on perturbed days in 1957—1959 is studied using geomagnetic indices K of 92 observatories which followed the program of the IQY. The study is limited to the diurnal wave of geomagnetic variations and related to local time and universal time. Analysis of the diurnal wave of magnetic variations yielded the following results: 1.) The first harmonic of the diurnal wave of equivalent amplitudes of magnetic activity on perturbed

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ACC NR: AT6034611

days is of the fundamental value. 2) Diurnal variations of magnetic activity can be related to both local and universal time. The component of universal time plays an important role in geomagnetic activity of perturbed days at all latitudes. 3) Variations of the component of local time by latitude and season can be represented as a superposition of two waves with maxima at noon and midnight. Phases of these waves do not change with latitude. These waves are analogous to the current system of a disturbed magnetic field. The error amplitude of the local time component attains a maximum at two geomagnetic zones: $\phi = 63^\circ - 67^\circ$ and $\phi \approx 78^\circ$. 4) The superposed waves are physically different. The level of disturbances is proportional to the square root of the cosine of the zenithal distance of the sun. The wave with a maximum at noon is predominant in equatorial and polar regions, and the wave with a maximum at midnight is predominant in the zone $\phi = 63^\circ - 67^\circ$. 5) The component of the universal time of variations consists of two parts, the symmetric and asymmetric, which differ from each other physically. The asymmetric part of the universal time component changes in phase by π in the transition from winter to summer of all latitudes. The error amplitude of the asymmetric part changes with latitude. The amplitude is near zero at middle latitudes and increases toward the auroral zone, being maximum at $\phi = 78^\circ$. The phase of the symmetric part of the universal time component is constant during the year, and the error

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ACC NR: AT6034611

amplitude of this part varies with the latitude like the change of the current system of the disturbed field. 6) The asymmetric part of the universal time component characterizes the magnetic activity during the rotation of the geomagnetic dipole and the distribution of the ionospheric conductivity. The symmetric part characterizes the dependence of the current system upon the eccentric rotation of the dipole. The authors thank V. S. Chesnokova for her help. Orig. art. has: 2 tables, 9 figures, and 32 formulas.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 024/ OTH REF: 009

Card 3/3

ACC NR: AT6034612

SOURCE CODE: UR/3148/66/000/008/0082/0088

AUTHOR: Troshichev, O. A.

ORG: none

TITLE: Diurnal rate of magnetic activity during the IGY period
(quiet days)

SOURCE: AN SSSR. Mezhdunarodnyy geofizicheskiy komitet. III
razdel programmy MGG (Geomagnetizm i zemnyye toki). Sbornik statey,
no. 8, 1966. Geomagnitnyye issledovaniya (Geomagnetic research),
82-88

TOPIC TAGS: geomagnetic activity, equivalent amplitude, harmonic
analysis, corpuscular stream, ionospheric conductivity, geomagnetism,
geomagnetic index, geomagnetic latitude, geomagnetic disturbance

ABSTRACT: The diurnal rate of changes in geomagnetic activity on
quiet days during the IGY is discussed. Data of the geomagnetic
K-indices taken from 92 stations were used and were transformed into
equivalent amplitudes R. Harmonic analysis of equivalent amplitudes
showed that the first harmonic was predominant in the diurnal rate for
the majority of stations in all seasons. The diurnal rate of magnetic
activity was divided for local and universal time. In the vicinity of
the outer zone of maximum of magnetic activity ($\phi = 60^\circ - 70^\circ$), the

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ACC NR: AT6034612

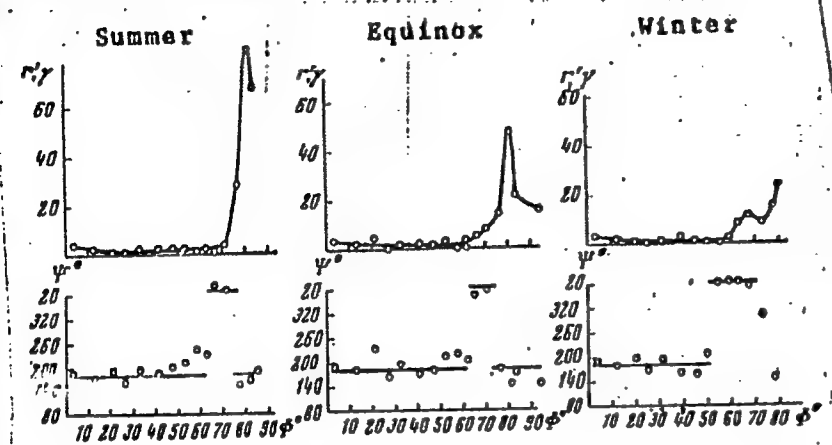


Fig. 1. Dependence of r' and γ upon ϕ .

local-time component of magnetic activity on quiet days is characterized by a wave with a midnight maximum. At all other latitudes, this component is characterized by a wave with a noon maximum. The component changes seasonally. The region with a predominant midnight wave increases and the amplitude of the wave is enlarged during the transition from summer to winter. The other wave with a noon maximum has increases from winter to summer. Fig. 1 shows the changes of r' and phase γ of the local-time component depending upon the geomagnetic

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ACC NR: AT6034612

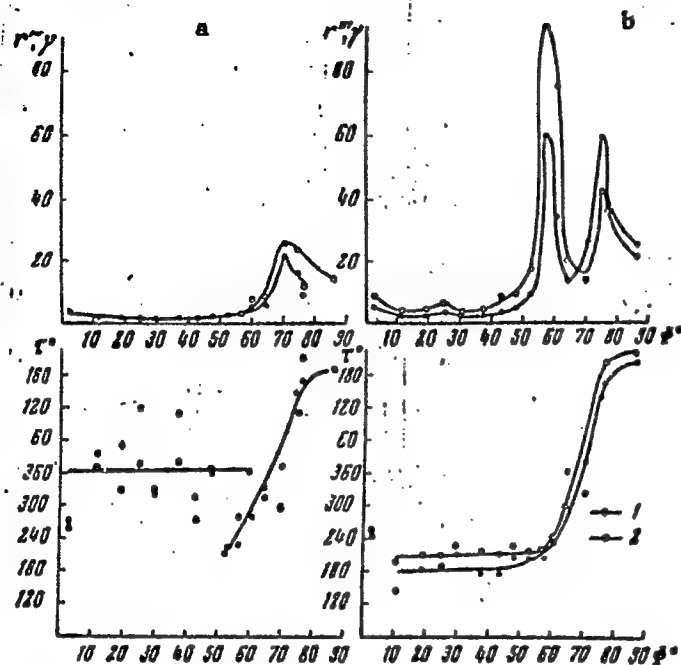


Fig. 2. Dependence of the amplitude r''' and phase r of the universal-time component upon the geomagnetic latitude on quiet (a) and disturbed (b) days.

1 - Winter and Summer;
2 - equinox.

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ACC NR: AT6034612

latitude. The diurnal disturbance decreases in the transition from disturbed to quiet days. In the middle latitudes the local-time component of the wave of magnetic activity with a noon maximum increases on passing from disturbed days to quiet days. Sharp changes in the amplitude of the nocturnal maximum of activity are caused by corpuscular streams interacting with the earth. The universal-time component of diurnal disturbances on disturbed days has symmetric and asymmetric aspects. Parameters of the symmetric part depend upon the latitude on both quiet and disturbed days. In the middle latitudes the time of maximum changes by π in the transition from disturbed to quiet days. In polar regions phases of the symmetric part are equal on quiet and disturbed days. Fig. 2 shows the state of magnetic activity in universal time. In the polar region changes in ionospheric conductivity influence the geomagnetic field, and the total vector of the geomagnetic field will be maximum at 0200 universal time. Orig. art. has: 3 figures and 1 table.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 008

Card 4/4

ACC NR: AT6034614 SOURCE CODE: UR/3148/66/000/008/0094/0101

AUTHOR: Mishin, V. M.; Troshichev, O. A.; Urbanovich, V. D.

ORG: none

TITLE: Distribution of magnetic activity at high latitudes

SOURCE: AN SSSR. Mezhdudedomstvennyy geofizicheskiy komitet. III razdel programmy MQG (Geomagnetizm i zemnyye toki). Sbornik statey, no. 8, 1966. Geomagnitnyye issledovaniya (Geomagnetic research), 94-101

TOPIC TAGS: geomagnetic disturbance, magnetic activity, equivalent amplitude, local time component, universal time component

ABSTRACT: Magnetic disturbances change sharply and reach maxima in high latitudes. Initial data concerned with the equivalent amplitude and parameters of the local time component of the diurnal rate of magnetic activity have been taken from tables of earlier publications of the same authors. These data are taken from 23 stations of the Northern Hemisphere and 14 stations of the Southern Hemisphere. Magnetic activity was recorded during the IGY on quiet and disturbed days. The mean diurnal disturbances for each station were computed for local summer, winter, and the equinoxes. When the latitudinal distribution of the universal-time component is known, the mean value of the

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ACC NR: AT6034614

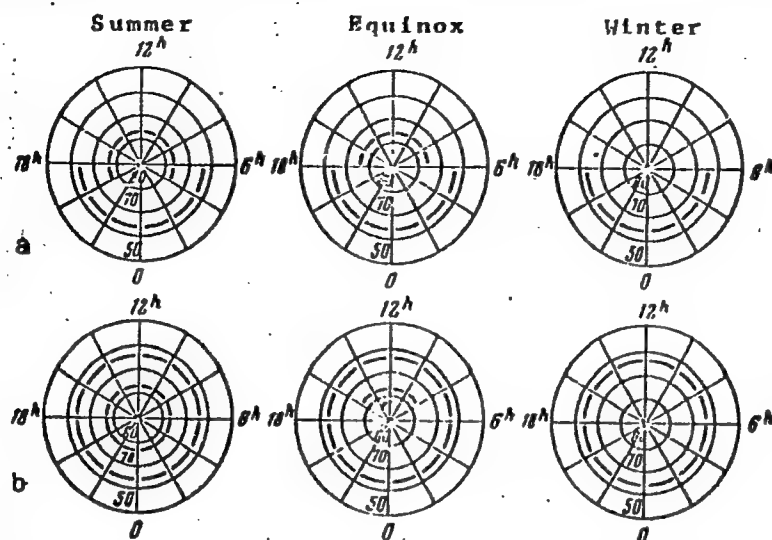


Fig. 1. Positions of latitude zones with maximum magnetic activity in 1954—1959.

a) - Quiet days; b) - disturbed days.

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ACC NR: AT6034614

equivalent amplitude can be computed using appropriate formulas. The maximum of the mean diurnal activity on disturbed days in summer occurs between the 63rd and 65th and near the 78th parallels. During winter and the equinoxes the maximum appears in the lower latitudes. No maximum appears at the 78th parallel. This distribution holds for the local-time component. The distribution of the maxima is shown in Fig. 1. On disturbed days the maximum activity in the first zone occurs at every hour of the day and night regardless of the season. In the second zone a sharp maximum appears in summer during daylight hours and a weak one in winter and the equinoxes. Both zones are divided by a wide zone of low activity. On quiet days in summer, the maximum activity is predominant in the second zone. Activity zones can be characterized in two ways: maxima distributed by latitude and by the diurnal rate of activity. The first results in annular zones and the second in spirals. Orig. art. has: 4 figures, 1 table, and 5 formulas.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 012/ OTH REF: 002

Card 3/3

LATYPOVA, R.Kh.; MISHIN, V.M.; TROSHICHEV, O.A.; FEDCHENKO, Z.A.

Apropos of M.S. Bobrov's article "Overall planetary picture
of geomagnetic disturbances of corpuscular origin." Geomag.
i aer. 2 no.3:553-560 My-Je '62. (MIRA 15:11)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln Sibirskogo otdeleniya AN SSSR.
(Cosmic rays) (Magnetic storms)

L 42286-66

ACC NR: AP6022500

SOURCE CODE: UR/0054/66/000/001/0069/0074

AUTHOR: Trifonov, Ye. D.; Troshin, A. S.

ORG: none

TITLE: Phase operator for an oscillator

SOURCE: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 1, 1966, 69-74

TOPIC TAGS: quantum oscillator, electromagnetic field, photon

ABSTRACT: It has been proposed in the literature that the electromagnetic field may be described in terms of the photon annihilation operator $a_{\vec{k}, \lambda}$. The operator for the positive-frequency portion of the electric voltage of the field can, with the aid of the operator $a_{\vec{k}, \lambda}$, be represented in the form

$$\vec{E}^+(\vec{r}, t) = i \sum_{\vec{k}, \lambda} \left(\frac{1}{2} L^{-3} \hbar \omega_{\vec{k}} \right)^{\frac{1}{2}} \vec{e}_{\lambda}(\vec{k}) e^{i\vec{k} \cdot \vec{r}} e^{-i\omega_{\vec{k}} t} a_{\vec{k}, \lambda}, \quad (1)$$

where L is one edge of the cube in which, according to the assumption, the field is enclosed; \vec{k} is the wave vector; λ is the polarization

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UDC: 530.145.6

L 42286-66

ACC NR: AP6022500

index; $\vec{e}_\lambda(\vec{k})$ is the unit polarization vector. The true values of the operator $\vec{E}^+(\vec{r}, t)$ can be represented, respectively, by the formula

$$\vec{E}^+(\vec{r}, t) = i \sum_{\vec{k}, \lambda} \left(\frac{1}{2} L^{-1} \hbar \omega_{\vec{k}} \right)^{\frac{1}{2}} \vec{e}_\lambda(\vec{k}) e^{i \vec{k} \cdot \vec{r}} e^{-i \omega_{\vec{k}} t} a_{\vec{k}, \lambda} \quad (2)$$

where $a_{\vec{k}, \lambda}$ is the true value of the operator $\hat{a}_{\vec{k}, \lambda}$

$$\hat{a}_{\vec{k}, \lambda} |a_{\vec{k}, \lambda}\rangle = a_{\vec{k}, \lambda} |a_{\vec{k}, \lambda}\rangle \quad (3)$$

The remainder of the article is given over to a mathematical development on the above basis. Orig. art. has: 34 formules.

SUE CODE: 20/ SUBM DATE: 22Nov65/ ORIG REF: 007/ OTH REF: 013

Card 2/2

ACC NR: AT6036559

SOURCE CODE: UR/0000/66/000/000/0165/0166

AUTHOR: Yeremeyev, N. S.; Troshikhin, G. V.

ORG: none

TITLE: The problem of the effect of oxygen on the acetylcholinesterase activity level in the brain of animals [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 165-166

TOPIC TAGS: hyperoxia, central nervous system, drug effect, nervous activity, acetylcholinesterase

ABSTRACT: A study was made of the effect of chronic exposure to hyperoxic media with various pO_2 on cerebral acetylcholinesterase activity in CC 57 strain white mice (males) 3 mo old. Acetylcholinesterase activity was determined by continuous potentiometric titration at constant pH and temperature, and expressed in micromols (μ mol) of acetylcholine hydrolyzed in 1 hr from a gram live weight of brain tissue.

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ACC NR: AT6036559

The animals were exposed for 1 month to atmospheres having pO_2 of 80%, 60%, and 40%, and for 5 days to an atmosphere with 60% oxygen. Controls were kept for similar periods in air.

The greatest brain acetylcholinesterase activity was found in the animals kept in the atmosphere with 80% oxygen ($1085 \pm 16.80 \mu\text{mol acetylcholine g/hr}$). In the animals exposed to the 60% oxygen atmosphere, activity was $1014 \pm 31.07 \mu\text{mol acetylcholine g/hr}$, which considerably exceeds that found in the controls ($871 \pm 16.86 \mu\text{mol acetylcholine g/hr}$). In the 5-day exposure to the 60% oxygen atmosphere, brain acetylcholinesterase activity was still comparatively high ($979 \pm 52.97 \mu\text{mol acetylcholine g/hr}$), but lower than in the 1-mo exposure. In the mice exposed to a 40% oxygen atmosphere, no statistically reliable difference between the experimental and control groups were observed.

It is concluded that increasing pO_2 in the respired air causes the level of brain acetylcholinesterase activity to increase, primarily owing to intensified sympathetic nervous system activity. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Card 2/2

ACC NR: AP7001830

(N)

SOURCE CODE: UR/0219/66/062/012/0046/0049

AUTHOR: Troshikhin, G. V.;

ORG: Institute of Physiology im. I. P. Pavlov/Director-Academician V. N. Chernigovsky/
AN SSSR, Leningrad (Institut fiziologii AN SSSR)

TITLE: Effect of chronic exposure to a hyperoxic medium on the gas metabolism of
white mice

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 62, no. 12, 1966,
46-49

TOPIC TAGS: hyperoxia, animal experiment, respiration, biologic metabolism

ABSTRACT: The dynamics of gas metabolism during prolonged exposure of animals to a medium with an increased concentration of oxygen was studied. A total of 76 white mice of the CC 57W strain was placed in two hermetic chambers. One chamber contained a hyperoxic mixture; the other contained air (control). The chambers were connected to a closed air system regeneration; oxygen was released automatically by a gas meter in proportion to the animals' oxygen consumption. The temperature was maintained at 20—23C. The gas metabolism of the animals was determined in media with the following oxygen contents: I. 40% O₂ for 27 days; II. 60% O₂ for 39 days; III. 80% O₂ for 42 days; IV. 90% O₂ for 10 days. In the first series of experiments, animals showed a short period of increased O₂ consumption (three days), followed by a

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UDC: 612.275.014.49:612.22

ACC NR: AP7001830

return to normal. In the second series, there was a longer period of increased O₂ consumption (26 days) and then a gradual return to the normal level. The higher amount of O₂ consumption in both series of experiments was accompanied by increased CO₂ release. No differences were observed in weight between the control and experimental mice as a result of the tests. The third series caused a decrease in gas metabolism during the entire experiment, with an especially sharp decrease (27%) on the eighth to ninth days. The weight of the animals dropped by 20% after the end of the experiments: O₂ consumption did not return to normal for eight days after the experiments, even though weight had returned to normal. In the fourth series, there was a marked drop in gas metabolism from the first day, and by the fourth day it had decreased by 60% of original amount. On the seventh day mice began to die. Most deaths were accompanied by inflammation. In three survivors, oxygen consumption increased with resumed respiration of air and reached normal on the ninth day. Thus, in animals exposed to an 80% medium there was no mortality. However, sluggishness, adynamia, and decreased appetite were observed. A 90% concentration of O₂ was clearly toxic. Changes in gas metabolism in mice after a prolonged stay in hyperoxic conditions with various percentile contents of oxygen probably reflect, complex physiological changes in metabolic processes. (WNO2)

SUB CODE: 06/ SUBM DATE: 29Apr65/ ORIG REF: 008/ OTH REF: 005/

Card 2/2

ACC NR: AT6036562

SOURCE CODE: UR/0000/66/000/000/0171/0171.

AUTHOR: Zhironkin, A. G.; Troshikin, G. V.

ORG: none

TITLE: Rate of formation of conditioned reflexes and oxygen absorption level in animals kept for long periods in an oxygen-enriched helium atmosphere [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 171

TOPIC TAGS: hyperoxia, helium oxygen atmosphere, conditioned reflex, biologic metabolism, central nervous system, mouse

ABSTRACT: Experiments are reported on the functional state of the CNS (Based on the rate of conditioned defense reflex formation and the level of gas metabolism) in 3 groups of mice exposed for 20 days to hyperoxic atmospheres of: a) 60% oxygen and 40% helium; b) 60% oxygen and 40% nitrogen; and c) 20% oxygen and 80% nitrogen (control). It was found that in hyperoxic atmospheres the rate of formation of conditioned reflexes was slower and motor reaction time longer than in air (control). Gas metabolism was more intense in both experimental groups.

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ACC NR: AT6036562

Conditioned reflex formation rate and motor reaction time was almost identical for the "helium" (a) and "nitrogen" (b) mice. However, the level of gas metabolism was noticeably greater in the "helium" group than in the "nitrogen" group.

It is suggested that slower formation of conditioned reflexes and retardation of motor reactions, as well as the higher level of gas metabolism in mice exposed for long periods to a hyperoxic helium atmosphere is related to the greater thermal conductivity of helium, which enhances cooling of the animals and displaces the thermal comfort zone. The specific effect of oxygen on CNS functions and metabolic processes is also a considerable factor contributing to these phenomena. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Card 2/2

1. NAME-01 2. REF(1) 3. DATE 05/00

ACC NR: AT0036674

SOURCE CODE: UR/0000/66/000/000/0366/0367

AUTHOR: Troshikin, G. V.

ORG: none

TITLE: Effect of helium on conditioned reflex activity and gas metabolism in animals [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24-27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 366-367

TOPIC TAGS: helium oxygen atmosphere, conditioned reflex, biologic respiration, mouse

ABSTRACT:

A study was made of the rate of conditioned defense reflex formation and gas metabolism dynamics in 40 adult male white mice exposed for 1 month to an atmosphere of 21% oxygen and 79% helium at temperatures of 21° to 23° C and 24° to 26° C. Controls were kept the same length of time in an air atmosphere.

It was found that conditioned reflex formation took longer in mice kept in a helium--oxygen mixture at 21° to 23° C. Conditioned reflexes

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L 08862-67

ACC NR: AT6036674

became established on the 19th day of the experiment in the "helium" mice as against the 8th day in the control mice.

Gas metabolism increased during the first 3 days of exposure to the helium atmosphere; oxygen utilization subsequently decreased but remained higher than in the control group. After the helium--oxygen atmosphere was replaced with air, oxygen utilization remained at the same level for the first 2 days, then returned to normal.

In a second series of experiments with a similar helium--oxygen atmosphere but a higher (24° to 26° C) temperature, conditioned reflex formation occurred almost simultaneously in both groups of animals ("helium" and "air"). There was likewise no difference in the level of oxygen utilization, although rectal temperature in the "helium" mice was slightly lower than in the "air" mice.

It was concluded that the longer conditioned reflex formation time and higher oxygen utilization in a helium--oxygen atmosphere is due mainly to more efficient cooling of the animals by helium, which is a considerably better heat conductor than nitrogen. [W.A. No. 22; ATD Report 66-116]

Card 2/2 egk SUB CODE: 06 / SUBM DATE: 00ky66

ZHIRONKIN, A.G.; BRESLAV, I.S.; KONZA, E.A.; NOZDRACHEV, A.D.; SALATSINSKAYA,
Ye.N.; TROSHIKHIN, G.V.; FEDOROVA, L.D.; SHMELEVA, A.M.

Effect of prolonged sojourn of animals in oxygen-enriched air
on some physiological functions. Probl. kosm. biol. 4:518-
530 '65. (MIRA 18:9)

BRESLAV, I.S.; ZHIRONKIN, A.G.; KONZA, E.A.; SALATSKINSKAYA, Ye.N.;
TROSHIKHIN, G.V.

Dynamics of gas exchange in white mice under increased partial
oxygen pressure. Fiziol. zhur. 49 no.5:643-647 My '63. (MIRA 17:11)

1. From the Pavlov Institute of Physiology, Leningrad.

TROSHICHEV, V. M.

TROSHICHEV, V. M. - Khudozhnik i, GROMOV, V. L. - Kand. Tekh. Nauk, POKHELES, L. I. - Arkh., PSHECHNIKOVA, O. S. - Arkh., BUYANOV, Yu. P. - Inzh., BYKOVSKIY, O. L. - Arkh., BAYAR, O. G. (Rukovoditel'temy) - Kand. Arkhitektury, KAKOTINSKIY, M. P. - Kand. Arkhitektury, RABINOVICH, I. L. - Arkh., CHERIKOVER, L. Z. - Arkh., ANDREYEVSKIY, V. G. - Kand Tekhn. Nauk

Nauchnoissledovatel'skiy institut stroitel'noy tekhniki Akademii arkhitektury SSSR

Predlozheniya po oborudovaniyu i otdelke kvartir mnogoetazhnykh zhilykh domov v moskve (Al'bom)

Page 67

SO: Collection of Annotations of Scientific Research Work on Construction, completed in 1950. Moscow, 1951

TRCSHIHINA, P. :

"Changing Rhythm of Respiration on the Ontogenesis of Animals." Tr. from the Russian, p. 84. (ANALELE ROMANO-SOVIETICE. SERIA PEDIATRIE. Series a III-a v, 6, no. 5, Sept./Oct. 1953, Bucuresti, Rumania.)

SO: Monthly List of East European Accessions, LC, Vol. 3, No. 4, April 1954

L 30083-66 EWT(1) SCTB DD

ACC NR: AP6019196

SOURCE CODE: UR/0238/66/012/003/0313/0320

AUTHOR: Troshykhin, H. B.— Troshikhin, G. V. 22
B

ORG: Laboratory of Respiratory Physiology, Institute of Physiology im. I. P. Pavlov,
AN SSSR, Leningrad (Laboratoriya fiziologii dykhaniya Instituta fiziologii AN SSSR)

TITLE: The effect of a hyperoxic medium on some physiological functions of the organism

SOURCE: Fiziologichnyy zhurnal, v. 12, no. 3, 1966, 313-320

TOPIC TAGS: hyperoxia, respiration, conditioned reflex, animal physiology, ~~oxygen~~ biologic metabolism

ABSTRACT: To determine the effect of a hyperoxic medium made up of various percentages of oxygen on animals, oxygen consumption and the process of positive, defensive reflex development in response to light were studied using white mice. Four series of experiments were conducted: the first involved exposure to 40% oxygen for 27 days, the second, to 60% oxygen for 39 days, the third, to 80% oxygen for 42 days, and the fourth, to 90% oxygen for 10 days. Animals in the first series showed a temporary increase in oxygen consumption followed by normalization and no shifts in conditioned reflex activity. Animals of the second series showed increased oxygen consumption while reflex development was slower. In the third series, oxygen metabolism and the development of conditioned reflexes were noticeably depressed.

Card 1/2

L 30083-66

ACC NR: AP6019196

Animals of the fourth series exhibited sharply decreased oxygen consumption, total elimination of reflex activity, and finally death. These shifts observed in oxygen metabolism apparently reflect altered tissue metabolism which affects the rate of conditioned reflex development. Orig. art. has: 1 table and 3 figures. [CD]

SUB CODE: 06/ SUBM DATE: 28Nov65/ ORIG REF: 019/ OTH REF: 009/ ATD PRESS: 5012

Card 2/2

L 32924-66 EWI(1) SCTB DD

ACC NR: AP6019494

SOURCE CODE: UR/0247/66/016/003/0538/0540

AUTHOR: Troshikhin, G. V.

ORG: Physiology Institute im. I. P. Pavlov, Academy of Sciences
SSSR (Institut fiziologii Adakemii nauk SSSR)

TITLE: Effect of a hyperoxic medium ² with normal atmospheric pressure on
the development of conditioned reflexes in rats

SOURCE: Zhurnal vysshey nervnoy deyatel'nosti, v. 16, no. 3, 1966,
538-540

TOPIC TAGS: animal experiment, hyperoxia, conditioned reflex, brain

ABSTRACT: Four series of experiments were staged on 76 adult white male mice of the CC57W line to determine the effects of different gaseous media on the time required to develop a conditioned reflex. In the first series animals were exposed to a medium containing 40% oxygen for 27 days. In the second series animals were exposed to a medium containing 60% oxygen for 39 days. In the third series animals were exposed to a medium containing 80% oxygen for 42 days. In the fourth series animals were exposed to a medium containing 90% oxygen for 10 days. Conditioned-reflex development started from the first day of exposure to a hyperoxic

Card 1/2

UDC: 612.833.81+612.014.464

L 32924-66

ACC NR: AP6019494

medium and control experiments were conducted simultaneously in chambers filled with air. The number of days required to develop a defensive conditioned reflex and motor-activity rate served as indexes. Findings for the first series (40% oxygen) show that the conditioned reflex was developed in the control group by the 8th day and in the experimental group by the 9th day. In the second series (60% oxygen) the conditioned reflex was developed in the control group by the 13th day and in the experimental group by the 22nd day. In the third series (80% oxygen) the conditioned reflex was developed in the control group by the 19th day and in the experimental group by the 31st day. In the fourth series (90% oxygen) the orientation reflex of animals was totally absent. The animals were unable to develop conditioned reflexes and began to die on the 7th day. On the basis of these data, it appears that increase of oxygen in air used for breathing exerts a toxic effect on the brain cells and inhibits the function of the central nervous system. Orig. art. has: 2 figures. [06]

SUB CODE: 06/ SUBM DATE: 20May65/ ORIG REF: 007/ ATD PRESS: 5027

Card 2/2

BRESLAV, I.S.; ZHIRONKIN, A.G.; IL'NITSKIY, A.M.; KONZA, E.A.;
MITYUSHOV, M.I.; NOZDRACHEV, A.D.; SALATSINSKAYA, Ye.N.;
TROSHIKHIN, G.V.; SHMELEVA, A.M.

Some data on the effect of a closed space on the physiological
functions in animals. Probl.kosm.biol. 2:291-302 '62.

(MIRA 16:4)

(SPACE MEDICINE)

ACC NR: AP6030662

SOURCE CODE: UR/0020/66/169/006/1480/1482

AUTHOR: Troshikhin, G. V.

ORG: Institute of Physiology im. I. P. Pavlov, Academy of Sciences SSSR (Institut fiziologii Akademii nauk SSSR)

TITLE: Some features of the gas exchange and conditioned-reflex activity of animals during prolonged exposure to a helium-oxygen medium

SOURCE: AN SSSR. Doklady, v. 169, no. 6, 1966, 1480-1482

TOPIC TAGS: animal physiology, animal experiment, respiratory system, life support system, helium oxygen atmosphere, biologic metabolism, conditioned reflex

ABSTRACT: Experiments were conducted on 80 CC57-strain mice in two hermetic chambers equipped with closed air-regeneration systems. Oxygen consumption was monitored by an automatic gas counter. One chamber was supplied with a 21%-O₂, 79%-He mixture while the other served as a control (normal air). It was possible to increase the temperature in the helium-oxygen system. Each chamber contained 40 mice. The makeup of the gaseous medium was monitored twice a day and O₂ content was found to be 18-22%, CO₂ -- 0.1-0.7%, and the nitrogen component of the helium-oxygen mixture -- 2.5-5.0%. Some result of data on the oxygen consumption of experimental and control animals is given in Figure 1. The data indicated that increased O₂ consumption, decreased body temperature, and increased time necessary for the formation of conditioned

Card 1/2

UDC: 591.121+591.513+591.128

L 44570-66

ACC NR: AP6030662

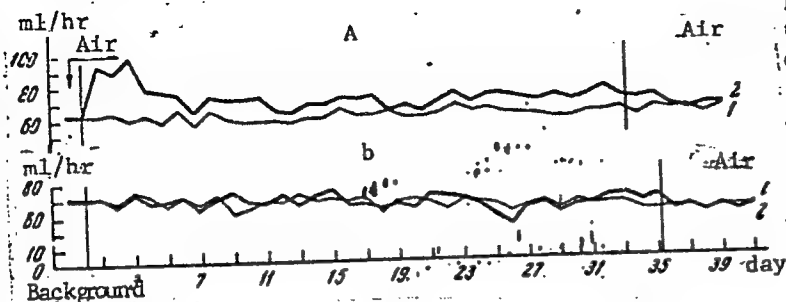


Fig. 1. Dynamics of O_2 consumption during the helium-oxygen experiment

A - When air and helium-oxygen temperature were the same;
B - when helium temperature was elevated; 1 - control; 2 - experimental.

reflexes occurred in the helium-oxygen atmosphere. This was caused by substantial heat loss and the difference between the thermal conductivity of helium and nitrogen. A two-week continuation of increased O_2 consumption after transfer from a helium-oxygen atmosphere to a normal one can apparently be explained by the inertia of metabolic, functional, reorganizational processes caused by prolonged cooling in the helium medium. Orig. art. has: 1 table and 1 figure. [CD]

SUB CODE: 06/ SUBM DATE: 17Jan66/ ORIG REF: 008/ OTH REF: 001/ ATD PRESS: 5079

Card 2/2 *zjm*

L 16812-66 EWT(1) SCTB DD
ACC NR: AT6003887

SOURCE CODE: UR/2865/65/004/000/0518/0530

AUTHOR: Zhironkin, A. G.; Breslav, I. S.; Konza, E. A.; Nozdrachev, A. D.;
Salatsinskaya, Ye. N.; Troshikhin, G. V.; Fedorova, L. D.; Shmeleva, A. M.

45
B+1

ORG: none

TITLE: Effects of prolonged exposure to oxygen-enriched air on some physiological functions in animals 2

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy kosmicheskoy biologii, v. 4, 1965, 518-530

TOPIC TAGS: oxygen, hyperoxia, physiology, space medicine, closed ecology system

ABSTRACT: Experiments were performed on white mice kept 10 days in a closed system filled with air or a gaseous mixture containing 63% oxygen to determine the effects on some basic functions in relation to the length of exposure. The respiratory rate of the "oxygen" mice was noticeably slower than that of the control mice and their oxygen consumption was somewhat higher. Hyperoxia lowered thyroid function, changed hematological indices (decrease in hemoglobin concentration, number

2

Card 1/2

L 16812-66

ACC NR: AT6003887

of erythrocytes, reticulocytes, and lymphocytes), and adversely affected the central nervous system (impairment of reflexes and decrease in excitability of some nerve centers). The changes noted were sharper after the 6th day of the experiment than after the 10th day, an indication of temporary adaptation. The authors conclude that it is relatively safe to breathe gaseous mixtures containing 63% oxygen for a 10 day period. However, the changes appearing on and after the 10th day, especially in the lungs and blood, are the initial signs of the pathological action of oxygen. Orig. art. has: 7 figures.

SUB CODE: 06/

SUBM DATE: 00/

ORIG REF: 043/

OTH REF: 013

Card 2/2 *net*

TROSHIKHIN, V. A.

Troshikhin, V. A. "On the problem of the balance of stimulation and inhibition processes in dogs of an excitable type," Trudy fiziol. laboratoriy im. Pavlova, Vol. XIII, 1948, p. 150-53

SO: U-2888, Letopis Zhurnal'nykh Statey, No.1 , 1949

KOLESNIKOV, M.S.;TROSHIKHIN, V.A.

Lower standard of tests for the determination of the higher nervous function in dog. Zh. vysshei nerv. deiat. 1 no. 5:739-743 Sept-Oct 1951. (CML 23:3)

1. Institute of Physiology imeni I. P. Pavlov of the Academy of Sciences USSR.

ALEKSANYAN, A.M.; TROSHIKHIN, V.A.; FEDOROV, V.K.

Against IU. Konorskii's reactionary criticism of I.P. Pavlov's theories. Izv.AN Arm.SSR,Biol.i sel'khoz.nauki. 4 no.2:107-118 '51. (MLRA 9:8)

1. Institut fiziologii Akademii nauk Armyanskoy SSR.
(Conditioned response)

KOLESNIKOV, M. S.; TROSHIKHIN, V. A.

Nervous System

Limited standard of tests for the determination of the type of higher nervous activity of a dog. Zhru.vys.nerv.deiat. 1 no. 5, 1951.

9. Monthly List of Russian Accessions, Library of Congress, April 195~~7~~₂, Uncl.

TROSHIKIN, V.A.

Nervous System

Some results of a study of the higher nervous activity in ontogenesis. Zhur. vys.
nerv. deiat. 2, no. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, NOVEMBER 1952 ~~1952~~ Unclassified.

TROSHIKHIN, V.A., zavednyushchiy.

Group study of typological properties of the nervous system in puppies.
Trudy Inst.fiziol. 1:21-28 '52. (MIRA 6:8)

1. Laboratoriya ontogeneza vysshey nervnoy deyatel'nosti.
(Nervous system)

KOBAKOVA, Ye.M.; TROSHIKHIN, V.A., zaveduyushchiy.

Effect of the cerebral cortex upon the motor activity of the small intestine during ontogenesis. Trudy Inst.fiziol. 1:157-165 '54. (Index 6:8)

1. Laboratoriya ontogeneza vysshey nervnoy deyatel'nosti.
(Brain) (Intestines)

OBRAZTSOVA, G.A.; TROSHIKHIN, V.A., zaveduyushchiy.

Origin and development of conditioned reflex activity in a rabbit during
ontogenesis. Trudy Inst.fiziol. 1:166-177 '52. (MLRA 6:8)

1. Laboratoriya ontogeneza vysshey nervnoy deyatel'nosti.
(Conditioned response)

OBRAZTSOVA, G.A.; TROSHIKHIN, V.A., zavednyushchiy.

Effect of blocking out the vestibular apparatus upon general development and reflex activity in a rabbit during ontogenesis. Trudy Inst.fiziol. 1:173-180 '52. (MLA 6:8)

1. Laboratoriya ontogeneza vysshey nervnoy deyatel'nosti.
(Conditioned response) (Labyrinth (Ear))

KOMAROVA, T.F.; TROSHIKHIN, V.A.

Some data on the inheritance and variability of typological properties of the nervous system in ontogenesis. Trudy Inst.fiziol. no.2:228-251
'52. (MLRA 7:5)

1. Laboratoriya sravnitel'nogo ontogeneza vysshey nervnoy deyatel'nosti (zaveduyushchiy - V.A.Troshikhin). (Nervous system)

TROSHIKHINA, P. M.

Respiration

Modification of respiratory rhythm in ontogenesis in animals, Fiziol.zhur., 39, no. 1, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

TROSHIKHIN, V.A.

Development of orientation reaction and formation of motor conditioned defense reflexes in puppies. *Fiziol. zh. SSSR* 39 no.3:265-274 May-June 1953.
(GLML 25:1)

1. Institute of Physiology imeni I. P. Pavlov of the Academy of Sciences USSR.

TROSHIKHIN, V.A.

Development of the orientation reaction and the establishment of motor conditioned-defensive reflexes in puppies. *Fiziol.zhur.* 39 no.3:265-274 My-Je '53. (MLRA 6:6)

1. Institut fiziologii im. I.P. Pavlova Akademii Nauk SSSR.
(Conditioned response)

TROSHIKHIN, V.A.; MAKARENKOV, A.N.

A method for studying conditioned reflex activity in puppies in
early stages of development. Zhur.vys.nerv.deiat. 4 no.5:724-727
S-O '54. (MLRA 8:7)

1. Institut fiziologii im. I.P.Pavlova AN SSSR.
(REFLEX, CONDITIONED,
technic in young dogs)

~~TROSHIKHIN V.A.~~

Effect of age and training on the mobility of neural processes in dogs. Trudy Inst.fiziol. 5:165-173 '56. (MIRA 10:1)

1. Laboratoriya sravnitel'nogo ontogenesa vysshey nervnoy deyatel'-nosti. Zaveduyushchiy - V.A.Troshikhin.
(NERVOUS SYSTEM) (TEMPERAMENT) (AGE)

EXCERPTA MEDICA Sec.2 Vol.9/9 Physiology, etc. Sept 56

4158. THOSHICHIN V.A. 'I.P. Pavlov' Inst. of Physiol., AN, Leningrad, SSSR.
*Formation and development of generalization in early
ontogenesis (Russian text) FIZIOL. Ž. 1956, 42/2 (186-191) Tables 3
Conditioned motor responses to feeding (unconditioned stimulus) and conditioned
acoustic stimuli develop in puppies on the 15th day of life. Conditioned differentia-
tion between different acoustic stimuli develops within 35 to 40 days.
Simonson - Minneapolis, Minn.

TROSHIKHIN, V.A.

Origin and development of the process of generalization in early ontogenesis. Fiziol. zhur. 42 no.2:186-191 F '56. (MIRA 9:6)

1. Institut fiziologii imeni. I.P. Pavlova AN SSSR, Leningrad.
(AGING, physiology,
eff. on conditioned digestive reactions in puppies (Rus))
(REFLEX, CONDITIONED,
age factor in conditioned digestive reactions in puppies
(Rus))

TROSHIKHIN, V.A.

Dissertations. Dept. of Biological Sciences, Jul-Dec 1957.
Vest. Ak Nauk SSSR, 1958, No. 4, pp. 120-22.

At the Inst. of Physiology im. I. P. Pavlov the following dissertations were defended:

for the degree of Doctor of Biological Sciences:

TROSHIKHIN, V. A. - Development of the Conditioned Activity of the Reflector in the Early Postnatal Period in Dogs.

KHARCHENKO, P. D. - Delayed Conditioned Reflexes/ Analysis of Retardation.

for the degree of Doctor of Medical Sciences:

PRONINA, N. N. - On the Problem of the Control Mechanism of the Water Metabolism.

for the degree of Cand. of Medical Sciences:

FAYZIYEV, S. - Unconditioned and Naturally Conditioned Nutritive Sputum Reflex in Sheep of the Romanov- and Karakul Breed.

CHUDROVSKIY, L. A. - On the Trophic Innervation of the Ovaries and the Uterus of the Rabbit.

TROSHIANIN, V. A., Doc Biolog Sci— (USSR) "The development of of a dog's
conditioned reflexes in the early post-natal period." Leningrad, 1957, 20 pp.
(AS USSR, Inst of Physiology im. I. P. Pavlov), 100 copies
(KL, No 41, 1957, p. 107)

MIRZAKARIMOVA, M.G., STEL'MAKH, L.F., TROSHIKHIN, V.A.

Controlled modifications of passive defense and searching reflexes
in ontogenesis [with summary in English]. Zhur.vys.nerv.deiat.
8 no.5:751-757 S-O '58 (MIRA 12:1)

1. Laboratoriya sravnitel'nogo ontogeneza vysshey nervnoy deyatel'nosti
Instituta fiziologii im. I.P. Pavlova AN SSSR.

(REFLEX,

passive defense & searching reflexes, eff. of
conditioning in young dogs (Rus))

(REFLEX, CONDITIONED

eff. on passive defense & searching reflexes in
young dogs (Rus))

KLYAVINA, M.P., KOBAKOVA, Ye.M., STEL'MAKH, L.N., TROSHKHIN, V.A.

The speed of formation of conditioned reflexes in dogs in ontogenesis/
[with summary in English]. Zhur.vys.nevr. deiat. 8 no.6:929-936
N-D '58 (MIRA 12:1)

1. Laboratory of Comparative Ontogenesis of the Higher Nervous Activity,
Pavlov Institute of Physiology, USSR Academy of Sciences, Koltushi.

(REFLEX, CONDITIONED,

rate of form. in young dogs, age factor (Rus))

(AGING, effects,

on conditioned reflex form, rate in young dogs (Rus))

KOBAKOVA, Ye.M.; KOZLOVA, L.N.; TROSHIKHIN, V.A.

Effect of various doses of gamma rays from radioactive cobalt on the development of a rabbit in ontogenesis. Nauch. soob. Inst. fiziol. AN SSSR no.1:163-165 '59. (MIRA 14:10)

1. Laboratoriya sravnitel'nogo ontogeneza vysshey nervnoy deyatel'nosti (zav. - V.A. Troshikhin) Instituta fiziologii imeni Pavlova AN SSSR.

(GAMMA RAYS--PHYSIOLOGICAL EFFECT) (ONTOGENY)

~~TROSHIKHIN, V.A.~~

Development of conditioned reflex activity in the early ontogenesis of animals. Izv. AN SSSR. Ser.biol. no.6:909-916 N-D '60.

(MIRA 13:11)

1. Institut fiziologii imeni I.P.Pavlova, Akademii nauk SSSR.

(CONDITIONED RESPONSE)

(ANIMALS, INFANCY OF) .

VAVILOVA, N.M. (Koltushi); KLYAVINA, M.P. (Koltushi); OBRAZTSOVA, G.A.
(Koltushi); TROSHIKHIN, V.A. (Koltushi)

Certain trends of research on the ontogenesis of the central nervous
system in animals. Us.p sovr. biol. 49 no.1:104-114 Ja-F '60.

(MIRA 14:5)

(NERVOUS SYSTEM)

(ONTOGENY)

TROSHIKHIN, V.A. [Troshykhin, V.A.]; KOZLOVA, L.N.

Formation and development of the mobility of nervous processes in the ontogeny of dogs. Fiziol. zhur. [Ukr.] 7 no.2:159-164 Mr-Apr '61. (MIRA 14:4)

1. Laboratory of Comparative Ontogeny of the Higher Nervous Activity of the I.P.Pavlov Institute of Physiology of the Academy of Science of the U.S.S.R., Leningrad.
(NERVOUS SYSTEM—AGING) (DOGS—PHYSIOLOGY)

TROSHIKHIN, V.A.; KOZLOVA, L.N.

Formation and development of mobility and inertness of neural processes
in ontogenesis. Zhur. vys. nerv.deiat. 11 no.5:878-883 S-0 '61.
(MIRA 15:1)

1. Laboratory of Comparative Ontogenesis of the High Nervous Activity,
Pavlov Institute of Physiology, U.S.S.R. Academy of Sciences.
(CONDITIONED RESPONSE) (NERVOUS SYSTEM)

VAVILOVA, N.M.; KLYAVINA, M.P.; OBRAZTSOVA, G.A.; TROSHIKHIN, V.A.

Correlation of the typological properties of higher nervous activity and the course of pathological processes. Zhur. vys. nerv. deiat. 11 no.6:1038-1043 N-D '61. (MIRA 15:3)

1. Laboratory of Comparative Ontogenesis of the Higher Nervous Activity, Pavlov Institute of Physiology, U.S.S.R. Academy of Sciences, Koltushi.

(NEUROSES) (NERVOUS SYSTEM) (CANCER) (PLAGUE)

TROSHYKHIN, V.A. [Troshykhin, V.O.]

Some problems of the development of congenital conditioned reactions and neuroses in ontogenesis. Fiziol. zhur. [Ukr.] 8 no.2:159-167
Mr-Apr '62. (MIRA 15:5)

1. I.P.Pavlov Institute of Physiology of the Academy of Sciences of the U.S.S.R., Leningrad, and the Institute of Hydrobiology of the Academy of Sciences of the Ukrainian S.S.R., Kiyev.
(CONDITIONED RESPONSE) (NEUROSES)

TROSHIKHEN, V.A.; KOTLOVA, L.N.

Particularity of the regulation of the system of the endocrine system in the organism of the rat. (Abstract of the report of the 1st All-Union Conference on the problems of the endocrine system, 1978, Moscow, 1979, No. 1, p. 10).

1. Institute of Physiology of the USSR Academy of Sciences.

TROSHIKHIN, V.A. [Troshykhin, V.O.]; KOZLOVA, L.N.; KIYENKO, V.M.
[Kyienko, V.M.]

Further materials on the problem of the mechanism of the ultra-
paradoxal phase. Fiziol. zhur. [Ukr.] 11 no.6:707-716 N-D '65.
(MIRA 19:1)

1. Institut fiziologii im. A.A. Bogomol'tsa AN UkrSSR, Kiyev.
Submitted June 13, 1965.

MAKARENKO, N.V. [Makarenko, M.V.]; TROSHIKHIN, V.A. [Troshykhin, V.O.]

Methodology of quantitative conditioned motc- response in small
laboratory animals. Fiziol. zhur. [Ukr.] 11 no.6:832-836 N-D '65.
(MIRA 19:1)

1. Laboratoriya fiziologii nervnoy sistemy Instituta fiziologii
im. Bogomol'tsa AN UkrSSR, Kiyev.

MAKARCHENKO, A.F., akademik, otv. red.; BOGACH, P.G., prof., red.;
TROSHIKHIN, V.A., prof., red.; GUREVICH, M.I., dcktor med.
nauk, red.; KOLCHINSKAYA, A.Z., doktor biol. nauk, red.;
PUTILIN, N.I., prof., red.; OLEYNIK, I.F., kand. biol. nauk,
red.; PREOBRAZHENSKIY, N.N., kand. vet. nauk, red.; SNEZHIN,
M.I., red.

[Regulation of vegetative functions] Reguliatsiya vegetativ-
nykh funktsii. Kiev, Naukova dumka, 1965. 246 p.

(MIRA 18:8)

1. Akademiya nauk URSS, Kiev. 2. AN Ukr.SSR (for Makarchenko).
3. Institut fiziologii im. A.A.Bogomol'tsa AN Ukr.SSR (for Putilin).

TROSHIKHIN, V.A. [Troshykhin, V.O.]

Formation and development of external and some forms of internal inhibition in early ontogenesis of animals born at an early stage of development. Fiziol.zhur.[Ukr.] 9 no.1:13-21 Ja-F '63.

(MIRA 18:5)

1. Laboratoriya sravnitel'nogo ontogeneza vysshey nervnoy deyatel'-nosti Instituta fiziologii im. I.P.Pavlova AN SSSR, Leningrad.

VAVILOVA, N.M.; KOBAKOVA, Ye.M.; OBRAZTSOVA, G.A.; TROSHIKHIN, V.A.

Characteristics of the individual properties of the higher nervous system in dogs based on the alimentary and defensive methodologies. Nauch.sob. Inst.fiziol. AN SSSR no.3:25-29 '65.

(MIRA 18:5)

1. Laboratoriya sravnitel'nogo ontogeneza vysshey nervnoy deyatel'nosti (zav. - G.A.Obraztsova) Instituta fiziologii imeni Pavlova AN SSSR.

BIRGER, Takhya Izrailevna[Birher, T.I.]; TROSHIKHIN, V.O.[Troshykhin, V.O.], doktor biol. nauk, otv. red.; BRAGINSKIY, L.P. [Brahins'kyi, L.P.], kand. biol. nauk, red. izd-va; RAKHLINA, N.P., tekhn. red.

[Value of invertebrates occurring in large masses in the Dnieper River and the Dnieper-Bug Liman as food of fishes] Kormova tsinuist' dlia ryb masovykh form bezkhrebetnykh Dnipra i Dniprovs'ko-Buz'koho limanu. Kyiv, Vyd-vo Akad. nauk URSR, 1961. 108 p. (MIRA 15:2)
(Dnieper Valley--Fresh-water fauna)
(Fishes--Food)

TRCSEKHINA, P.M.

Modification of respiratory rhythm ontogenesis in animals. Fiziol.
zh. SSSR 39 no. 1:66-70 Jan-Feb 1953. (CLML 24:2)

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"On the Problem of the Interrelations Between Motor and Digestive
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dissertation defended for the degree of Candidate of Biological Sciences at
the Inst. for Physiology im I. P. Pavlov.

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AUTHOR: Breslav, I. S.; Zhironkin, A. G.; Konza, E. A.; Salatsinskaya, Ye. N.; Troshikin, G. V.

TITLE: Gas exchange dynamics of white mice under conditions of high partial oxygen pressure 2

SOURCE: Fiziologicheskiiy zhurnal SSSR, v. 49, no. 5, 1963, 643-647

TOPIC TAGS: gas exchange, hyperoxia, hypoxia, redox, oxygen

ABSTRACT: Gas exchange dynamics in relation to an organism under hyperoxic conditions is of medical and biological importance but has received little attention. To study this problem experiments were conducted on white mice placed in a glass chamber with an automatic feeder. The chamber was kept under water to maintain a constant temperature (22-23°) and oxygen was supplied automatically. Total amount of carbon dioxide exhaled was determined by titrating the chemical absorber after the experiment. The mice were kept in nitrogen-oxygen mixtures with 60% or 90% oxygen (O sub 2) content for various periods of time. Some mice were taken from a regular air medium to a hyperoxic medium (60% or 90%) and some from a hyperoxic one to a

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hypoxic one (9% O sub 2). The gas exchange level of mice in a nitrogen-oxygen mixture at first is high and then drops to a level a little higher than normal and remains there. The gas exchange level of mice exposed to hyperoxic conditions for 36 hrs and then moved to a hypoxic medium undergoes a slow decrease. The dynamics of these changes reflect a rearrangement of the redox processes which appears to correspond with sudden changes in the oxygen medium. The author recommends that more detailed studies be made of oxygen concentrations and their effect on the gas exchange level in an organism. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Institut fiziologii im. I. P. Pavlova AN SSSR, Leningrad
(Institute of Physiology, AN SSSR)

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